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RETRO-PHARYNGEAL SARCOMA

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BY

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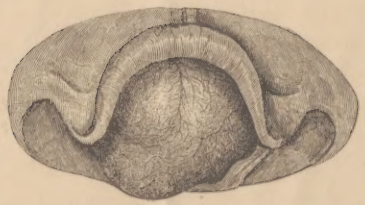
READ AT THE FIRST ANNUAL MEETING OF THE AMERICAN LARYNGOLOGICAL ASSOCIATION, HELD IN NEW YORK JUNE 10, 11 AND 12, 1879.

[*Reprinted from the St. Louis Medical and Surgical Journal, September.*]

ST. LOUIS:
GEO. O. RUMBOLD & CO.
1879.

Fig. 1.



Retro-Pharyngeal Sarcoma. Tumor as seen by laryngeal mirror.

RETRO-PHARYNGEAL SARCOMA.

BY F. I. KNIGHT, M. D.

I was consulted in the summer of 1877 by Dr. Chas. Homans, of Boston, with reference to a patient of his who presented the following history:

A lady thirty-six years of age had had a hacking cough much of the time for four or five years, and hawking and raising of phlegm, with sensation of strangling in the morning, for the previous year. She had been subject to sore throat, always pronounced "tonsillitis," for four years. She had been subject to dyspnœa on exertion for two years.

In January, 1877, having taken a severe cold, the cough was much exaggerated, she became debilitated, and was ordered to go South, and while at the South she first experienced a feeling of suffocation at night, which was several times afterwards repeated. She had had some dysphagia, but no pain in the throat. The voice was not affected. There was no family history of tumors. On her way North the throat was examined laryngoscopically for the first time by Dr. Samuel Johnston, of Baltimore, who discovered the large neoplasm, to be described. As the patient was unable to remain in Baltimore long enough to submit to treatment from Dr. Johnston, she returned to Boston, and came under my observation, as before mentioned.

On examination of the pharynx in the ordinary manner, nothing abnormal could be seen. With the laryngeal mirror a large tumor came into view, almost completely filling the upper cavity of the larynx. It was round, pretty smooth, rather soft to the touch, covered with congested mucous membrane, in which several vessels could be distinctly traced, and attached broadly in its posterior portion, exactly where, whether to the arytenoid region of the larynx, or to the posterior wall of the lower pharynx

could not be determined at that time. There was no ulceration, and no enlargement of lymphatic glands.

The situation of the growth was almost identical with that of a "fibroid" reported by Voltolini[1], which also had a broad attachment, and which apparently did not recur after removal by the galvano-caustic loop. It was decided to remove the growth in our case by the same means, after preliminary tracheotomy. Dr. Homans did tracheotomy the next day. Instead of using a simple platinum loop, I had the extremity of Mackenzie's "guarded wheel écraseur" fitted to Voltolini's handle, and protected on the posterior aspect by hard rubber.

Nothing could have been more satisfactory than the operation, the growth being quickly removed close to the pharyngeal wall with but little hemorrhage. It was of the size of a small horse-chestnut, encapsulated, and its cut surface about half an inch in diameter. We had hoped that, notwithstanding its rather soft feeling, it, like Voltolini's, would prove a fibroid. But it was pronounced by Dr. Cutler, and afterwards by Dr. Fitz, to be a small-celled spindle sarcoma.

Dr. Cutler's report of the microscopic appearance of the growth after hardening was as follows: "It was composed of moderately small spindle cells, lying singly in a very small amount of intercellular substance. These cells were in many places arranged in bundles, which intersected each other in all directions. In a few places large numbers of round cells of medium size were found, and occasionally star-shaped cells were met with. By far the greater number of cells were spindle shaped. The growth was a spindle-celled sarcoma."

In a few days it had grown to almost its original size, and so it has remained for nearly two years, with a certain amount of shrinkage in the past year. The patient has continued to wear the tracheal tube, has had no difficulty in swallowing, and in fact little annoyance but from the tube, excepting occasional aphonia when she has taken cold. Ordinarily the voice has been very good when the tracheal tube was stopped. Both Dr. Homans and myself felt that it was better to wait for more urgent symptoms before undertaking a radical operation, which would not only endanger life, but involve the risk (with a growth so liable to recur, if life were saved), of increasing the discomfort of the patient.

1. Die Anwendung der Galvanocaustik, etc., 2 te., Aufl. Wien, 1872, p. 226.

I have been interested in looking up records of similar pharyngeal growths, and have made brief abstracts of cases found

Arnott[1] reports the case of a female nineteen years of age, who had noticed a lump in her throat three months. Dysphagia and impaired speech (from obstructed nares) had existed longer. On examination a round tumor was seen filling the upper part of the pharynx, arising apparently from below. It was of the color of the surrounding parts, but its surface was rough and irregular. It was somewhat movable, and seemed attached by a pedicle to the posterior wall of the pharynx below the sight. It was removed by ligature and evulsion. There was no hemorrhage, and the patient left the hospital in a few days. Examination of the tumor showed it to be of the "size of a green walnut," with a narrow pedicle. The surface was mulberry-like. On section it was firm, of uniform character, and "corresponded with what has been called albuminous sarcoma." On microscopic examination there were found caudate, nucleated cells, and a thin layer of epithelial cells on its surface.

Arnott[2] reports another case, that of a female forty years of age, who received a blow from a man's fist on the left jaw. She suffered pain in this region till at the end of a month a suffocative attack at night led to the discovery of a small hard swelling of about the size of a hazelnut in the left fauces. When seen by Arnott a year and a half later she complained of attacks of suffocation and dyspnœa. She could swallow liquids or fine solids without difficulty. On examination a globular tumor projected from left of fauces two-thirds across the isthmus. It was smooth, covered by mucous membrane, had a broad base, and no trace of tonsil or posterior pillar of palate could be seen on the affected side. The mucous membrane was divided, then a layer of muscular fiber, and then a cyst, the walls of which having been pushed back, a ligature was applied, the growth sloughed, and potassa fusa was applied to the stump. At the end of three months the only evidences of disease were granulations arising from the projecting and everted edge of the contracted cyst. This was also called "albuminous sarcoma."

Busch[3] gives three cases of what he designates as "retro-pharyngeal tumors." The first case was that of a man thirty-

1. *Lond. Med. Gaz.*, N. S. 1845, vol. I, p. 530.
2. L. c., p. 531.
3. Annalen des Charite-Krankenhauses, Jahrg. 8, hft. 1, p. 89, 1857.

four years of age, whose voice had been modified for fourteen years. He had had dyspnœa for six months, with suffocative attacks in his sleep. There is no mention of dysphagia. On examination a tumor as large as a goose egg, with somewhat uneven surface, was found to extend from the level of the epiglottis up behind the soft palate, which it pushed forward on the left side. The mucous membrane covering it was livid. The tonsil was seen in the middle of the tumor. The external carotid, having been seen to be dilated, was tied previous to the operation on the growth, in order to diminish hemorrhage. An incision was made in the soft palate and mucous membrane covering the tumor, which was then peeled out with the fingers and scalpel. It was so large that, notwithstanding the patient's front teeth were missing, it was with difficulty brought out of the mouth. It was pronounced a sarcoma in a firm connective tissue capsule. There was severe pharyngeal inflammation for a few days, after which the patient was declared cured.

The second case was that of a man aged seventy, who had felt a small bunch in his throat a year before admission to the hospital. On admission deglutition was very difficult. On examination a tumor was found coming from the left, which filled the pharynx. On swallowing, the food passed through a narrow ulcerated slit. The operation was the same as in the preceding case. The carotid, however, was not ligated. As the ulceration prevented the preservation of the mucous membrane intact, a crucial incision was made in it. Severe imflammation followed for a few days. The patient was discharged cured. The growth was stated to be morphologically like that of the preceding case, but with a great preponderance of unripe cell elements.

The third case reported by Busch is that of a man whose age is not stated, who had a growth of the size of a hen's egg, apparently similar to the preceding, arising from the right side of the pharynx. It did not cause him sufficient annoyance to induce him to consent to an operation.

Röser[1] reports a case which occurred in his practice in 1826. The patient's symptoms were dysphagia of six months' duration, extreme at time of examination, dangerous dyspnœa, nausea and vomiting, and hoarseness.

On ordinary inspection of the fauces nothing could be seen,

1. Medicinisches Correspondenz-blatt des Würtembergischen Aerzlitchen Vereins. bd. 29, S. 161, 1859.

but when the patient was made to gag, a smooth, soft, round, bright-red tumor came into view. By the finger it seemed to be attached to the posterior wall of the pharynx, low down. It was torn out with the forceps used for extracting stone from the bladder. It was two and a half inches in diameter, and covered with mucous membrane except at the place of attachment, which was as large as a "thaler." It looked like an ordinary fibroid, but was softer and more elastic. The microscope was not then in use. As the growth was softer and more elastic than an ordinary fibroid, it may have been sarcomatous. There was very slight hemorrhage after the operation.

Wagner (of Königsberg)[1] gives the case of a man, twenty-six years of age, who for twelve years had noticed a small, movable tumor under left angle of lower jaw. This began to increase rather rapidly, and at the same time pain on swallowing was experienced. Some swelling was detected about the left tonsil. About seven months after this he was admitted to the hospital. Ten days before his admission severe pain running up the ear and brow had set in, and the growth increased so much that he could not swallow solids at all, and he swallowed liquids with difficulty. Several times suffocative attacks had occurred in his sleep, and quite considerable hemorrhage. On examination, there was found a tumor of the size of a pigeon's egg under left angle of jaw; inside, the left arches of palate and pharyngeal wall were pushed out by a tumor, which was elastic, firm and smooth, and which seemed strongly attached to the bony wall of the pharynx. The left tonsil was not seen; where it naturally would have been, the tumor was ulcerated. The arcus palatoglossus and mucous membrane of the pharynx were incised, and the tumor dissected out with the fingers, scalpel, etc. It was apparently thoroughly removed. The external tumor was found to be quite distinct, and also removed. The inner growth arose from the retropharyngeal connective tissue of the spine, which was itself sound; it was of the size of the fist and extended from the base of the skull to the hyoid bone. It was pronounced a soft sarcoma. There was a speedy recurrence, frequent partial removal for relief, and finally death, five months after entrance, the patient having been choked by a piece of the tumor falling upon the larynx.

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1. Deutsche Klinik, 1861. p. 61.

Larondelle[1] reports the case of a woman, twenty-eight years of age, who had had dysphagia sixteen months. For six months she had been unable to swallow solids, and had sometimes regurgitated liquids through the nose. Her voice was thick, hoarse, and nasal. She had severe paroxysms of cough, and suffocation; also nausea and vomiting. On examination a large, round, smooth tumor, reddish in color, was seen filling the space between the base of the tongue, the posterior wall of the pharynx, and the larynx. It was attached by a short pedicle (about two centimetres thick) to the left lateral wall of the pharynx below the tonsil. It was removed by the ecraseur. It measured seven by four centimetres. It consisted of connective and elastic tissue surrounding alveoli filled with fat cells. Adipose tissue very abundant. It was called sarcoma. Perhaps it should have been classed rather as a lipoma. The pedicle seemed to consist only of mucous membrane. There had been no recurrence at the end of seven months.

Rosenbach,[2] reports a case operated on by Prof. Baum, of Gôttingen. A man, forty-five years of age, was sent to the hospital on account of dysphagia and dyspnœa with suffocative attacks, which had been developing for six months or more. He had coughed up a piece of new growth half as large as the terminal phalanx of the thumb. On examination of fauces, a large reddish tumor was discovered. It was soft, and its surface was uneven, presenting large and small projections. It was adherent to the pharynx on the right of the hyoid bone. It measured one centimetre horizontally, more vertically. There was no lymphatic enlargement. Tracheotomy was done. Trendelenburg's canula was introduced, and then sub-hyoid pharyngotomy was performed. The growth was torn away with the fingers, and ligatures put upon the adherent stump. The growth was pronounced a round-cell sarcoma. The patient was discharged cured, but there was no subsequent report from him.

Venturini,[3] reports the case of a boy, twelve years of age. A year before seen by V. he had had otorrhœa of the right ear, and some enlargement of the cervical glands of the same side. At

1. *Bulletin de L'Academie Royale de Médicine de Belgique* III Serie. Tome 4, p. 183. 1870.

2. *Berliner Klinische Wochenschrift*, 1875, p. 519.

3. *L'Ippocratico*, 1871, vol. XIX., 3 Ser. p. 89.

this time he had some inconvenience in swallowing. When seen by Vezzarini he was emaciated and livid, and had three large glandular swellings of the right side of the neck.

On examination of the fauces, a large tumor was discovered attached by an extremely short pedicle to the right posterior pillar of the pharynx. On moving it, the patient was threatened with suffocation. It was removed at once by the largest sized wire écraseur. There was but little hemorrhage. The wound healed quickly, and the glandular swellings diminished. The tumor was of the size of a small apple, of a rosy color, nearly round, smooth, elastic, and of a soft, meaty consistence.

On section it had a lardaceous appearance, and on scraping, a reddish yellow fluid was exuded. The vessels from the pedicle ramified freely in the tumor. On microscopic examination were found uniform round cells, and a granular protoplasm nucleated and contained in a scanty amorphous cellular substance. All the surface of the tumor was covered with pavement epithelium, which connected with it by fibres of connective tissue. The patient was seen three months after the operation. He looked well, and there was no appearance of the reproduction of the tumor. There was still a trace of the operation, and the right tonsil was somewhat atrophied.

Billroth,[1] reports the removal by the écraseur of a fibro-sarcomatous polypus of the size of a hen's egg from the pharynx. After nearly six years the patient, who was a man of fifty years, showed no signs of recurrence.

Mr. Syme[2] reports a case of "Fibrous Tumor of the Fauces," which Busch thinks was more likely a retropharyngeal sarcoma. A man of thirty-eight years presented himself, having a large, round, firm tumor, somewhat nodulated, in the region of the left tonsil. It was somewhat movable. It was as large as a small potato. The mucous membrane was divided, and the growth dissected out. The subsequent history as to recurrence is not given.

J. Carreno[3] gives the history of a rather remarkable case. Twenty-one years before his visit to Carreno, the patient, who was then a man of forty-nine years, had noticed in his throat one

1. *Langenbeck's Archiv für Klinische Chirurgie*, Bd. X S. 207.

2. *London Lancet*, 1856, vol. I, p. 51.

3. *Observacion de cuatro polipos situados en el centro de la faringe Decados de Med. y Cir. pract. Madrid,* 1828, vol XVII. p. 217.

day while shaving himself a few bodies resembling hairs or straws, which terminated at their ends in little balls about the size of lentils. When Carreno saw him he had terrible dyspnœa, and dysphagia, and stated that during an attack of vomiting, a tumor had protruded an inch outside of the mouth. On examination two large tumors were seen in the fauces, pediculated, one measuring four inches in length and two and one-half inches in thickness, with a thick and long pedicle, the other three and one-half inches in length, and more than four inches in thickness, its pedicle being thick and short, somewhat resembling cartilage. Their color was that of raw meat. The first was ligated and removed with the bistoury. The second was ligated, and removed with a lithotome and curved scissors. The removal of these two revealed the existence of two other pediculated growths rising from the bases of the preceding ones, and these were ligated several days after. There was much hemorrhage, and danger of suffocation from loosening of a ligature, which was controlled by another. The growths were pronounced fibro-cellular, and contained in their interior a tallow-like, concrete substance, ramified with vessels. They originated in the submucous cellular tissue.

Dr. S. H. Chapman[1] reports a case of "Sarcoma of the Inferior Constrictor of the Pharynx and Inlet of the Œsophagus," which, however, belonged more to the œsophagus than pharynx, and so does not much concern us at the present time.

Dr. Busch,[2] of Bonn, at the sixth Congress of the Society of German Surgeons, showed several retro-pharyngeal tumors, one of them a lipoma of the size of the fist. He said that these tumors were rather frequently met with in Bonn. They were lymphomata, fibromata, sarcomata, and rarely lipomata; generally encapsuled and easily removed. Their removal was, however, rendered difficult by the previous employment of electrolysis, the galvano-cautery, etc., which led to the destruction of the capsular limitation and to cicatricial induration between the sheath of the carotid, the bucco-pharyngeal fascia, and the surface of the tumor rendering the separation of the latter from the carotid a difficult and dangerous proceeding.

Dr. Cohen[3] refers to a case of round-celled sarcoma of the

1. *The American Journal of the Medical Sciences*, Oct., 1877.
2. *London Medical Record*, Oct, 15th, 1877.
3. Diseases of the Throat and Nasal Passages, 2d Ed. New York, 1879, p. 252.

pharynx, with extensive attachments, which had been attending the surgical clinics at Jefferson Medical College for two years, in which tracheotomy was performed, and large masses removed from time to time for several months subsequently; Dr. Cohen remarks that it is quite likely that the patient would not have survived as long had a radical operation been performed when he first presented himself.

It will suggest itself at once that the facts given do not warrant us in classifying all of these cases under the head of sarcomata. There is no doubt, furthermore, that other cases, which have been recorded as fibroid, belong to this class. It will be seen also that the nature of the growths, properly classed as sarcomata, is very varied, so that we cannot rightly compare even them for the sake of making any deduction as to their clinical history, i. e., time and mode of development, liability to recurrence, etc.

They are interesting, because rare, and with reference to practical procedure. The pediculated growths are easily disposed of by ligature, écraseur, snare, scissors, etc. Those with a broad base are much harder to deal with. Few would be as successful as Röser, in tearing out such a growth with forceps. If it is situated high in the pharynx, it may be dissected out, as in the cases of Arnott (2d case) Busch and Wagner. But even in this case, if the tumor is situated at the side of the pharynx, which, as we have seen, occurs in many instances, the proximity of the carotid artery and its branches may render the operation very embarrassing, and we have seen that Busch took the precaution to tie the external carotid in one case, having found that vessel to be dilated.

If the growth of broad base is situated low in the pharynx, there seems little hope from any operation but pharyngotomy. Sub-hyoid pharyngotomy has been performed twice for the removal of tumors of the pharynx, once successfully and once with a fatal result. The fatal case was the well-known one of Langenbeck,[1] in which the operation was performed for the removal of a fibroma of the size of a Borsdorf apple. Twenty-five ligatures were required, there was much hemorrhage, both primary and secondary, and the patient died on the second day after the operation. The successful case was that of Prof. Baum, reported by Rosenbach, to which we have already made reference.

1. *Allg. Central-Zeit,* 1870, January 29th.

The propriety of performing this serious and certainly hazardous operation, upon a growth liable to recurrence, before urgent symptoms demand it, I should like to make the subject of discussion by the Association.

DISCUSSION.

Dr. Cohen, of Philadelphia, expressed his interest in the paper that had just been read and stated that according to his own experience, sarcoma of the pharynx was quite rare, the great majority of pharyngeal neoplasms being fibromas. He was not aware that so many cases of sarcoma were on record. Indeed, he could only distinctly remember having seen two positive cases of sarcoma, the case referred to in the paper as mentioned in the late edition of his book, and another, which only the Friday previously he had assisted a former pupil, Dr. Franklin, of Philadelphia, in removing with the galvano-cautery and forcible evulsion. Though doubting the propriety of attempts at radical removal of malignant growths of the pharynx unless the symptoms were urgent, interfering seriously with respiration or with deglutition, he had rather favored an operation in the instance to which he was about to refer, for reasons he mentioned in its recital. Sunday, two weeks ago, Dr. Franklin brought to him in consultation, a healthy carpenter, forty-one years of age, single, and formerly a sea captain, who had first complained of sore throat, the result of cold two months previously.

About two weeks before Dr. Cohen saw the case some symptoms of impeded articulation and nasal obstruction led Dr. Franklin to pass his fore-finger into the retronasal portion of the pharynx of the side affected, with the result of discovering some irregularities of surface which were attributed to the existence of adenoid vegetations, as so frequently encountered in that region, but there was no evidence of the existence of a tumor on direct inspection of the throat. One week later a swelling was noticed at the lower portion of the left side of the soft palate due to something behind it, which palpation revealed to be an irregular morbid growth. During the week that had passed this had undergone considerable enlargement. Dr. Cohen observed the marked bulging of the soft palate by the tumor which had pushed

the uvula far to the right side so as to be almost in contact with the tonsil of that side. The tumor was wholly above the level of the soft palate and did not involve the palatine fold or the tonsil. Rhinoscopic inspection revealed the presence of an irregular tumor filling the left side of the naso pharyngeal space, extending beyond the middle line and precluding a view of the normal pharyngeal wall and of the posterior outlet of the left nares. Palpation determined its size as equal to that of a large horse chestnut, lobulated and divided transversely into two flattened but continuous lobes, the anterior one being involved in the posterior wall of the palate, and the posterior one adherent by somewhat constricted attachments to the posterior wall of the pharynx, to the left of the median line, and possibly laterally also, in the extreme posterior portion. It was semi-elastic in consistence at its free surface but very firm at its points of attachment as far as they could be circumscribed. It bled slightly from the manipulation. There was no pain. Several portions of the neoplasm were removed with gouge, forceps and frozen sections of the same were made within an hour by Drs. Seiler and Simes of the Pathological Society of Philadelphia, which, on examination, proved to be sections of a small round cell sarcoma. The apparent localization of the mass, its rapid growth, and the alternative, under the results of the microscopic examination, of abandoning the patient to positive destruction in the future development of the neoplasm, led Dr. Franklin and himself to decide upon its early removal, with a large portion of the soft palate, in the hope of getting rid of the entire disease. The operation proposed was to excise a large portion of the soft palate with the galvano-cautery knife, remove the pharyngeal attachments of the growth by evulsion, and freely cauterize the entire surface of implantation with the galvano-cautery. The extreme probability of recurrence was explained to the patient.

On the day mentioned the operation was performed successfully, without anæsthesia, and the patient was doing well, with a large cleft in the palate. The disturbance caused by the rather protracted operation had been so little that before retiring to his room the patient had asked for an entertaining book to read, to keep his mind engaged. Dr. Cohen took occasion to mention that the excision of the palate was mainly performed on the hanging head (Rose's plan), but that at the request of the patient, the sitting posture was substituted, and found to be much

more convenient for manipulation, as there was no hemorrhage until the evulsion was practiced and that was but little. As to the propriety of the removal of the tumor, time would soon decide, but he would reiterate the opinion entertained in connection with the case referred to in his book, and in which the œsophageal portion of the pharynx on the right side was chiefly involved, that that patient would hardly have survived the two years he had existed, had a radical operation been attempted. In the present instance direct access to the entire mass was practicable and this appeared to him one of the reasons which should influence the decision to operate. Inefficient removal of a sarcoma would be almost inevitably followed by accelerated growth and if there had been much disturbance of the normal position of sound parts, the growth would be proportionally rapid in the absence of limiting structures.

Where the symptoms produced by sarcoma were not urgent or could be combatted by other resources and the growth was not rapid, Dr. Cohen would certainly hesitate in advising an operation. Where symptoms were urgent or where the growth was rapid, the propriety of evulsion would depend upon a sufficiently limited extent of implication of tissue to justify a hope that the entire mass might be eradicated, with a certain amount of surrounding tissue apparently still healthy. When the attachments of a sarcoma were sufficiently extensive to preclude a hope of removing the entire mass, the only justification for operative procedure would be the desire of averting immediate or approximatively immediate death, and thus prolonging the life of the individual for a brief period.

Dr. Carl Seiler, of Philadelphia, said that he was not satisfied with the report of the microscopical examination of the tumor, inasmuch as it gave nothing but a description of the shape of the cells, and that, according to this report, it might be a fibroma or myxoma or anything else. He further said that at the present time the mere shape of the cell was not accepted by microscopists as diagnostic of a growth, but that the arrangement of the cells and the character of the blood vessels, together with the stroma in which the cells are found, must all be taken into consideration in a microscopical examination. After examining a section of the growth, he said that he considered it to be a fibroma, because it was made up of long, thin spindle-shaped cells, ar-

ranged in bundles, having small nuclei. These bundles of cells or fibers were seen to run in different directions, interlacing with each other. The blood vessels were seen to be fully developed, exhibiting well marked coats in cross sections, and no stroma or inter-cellular substance could be made out. If it was a spindle-celled sarcoma, the cells would be shorter and thicker, the nuclei larger, and the blood vessels mere channels between the bundles of cells.

[Dr. Cutler having been informed after the meeting that objection had been made to his opinion of the character of the tumor, writes as follows: "A microscopic examination, both while fresh and after hardening, showed that it was composed of medium-sized cells, with relatively large oval nuclei, lying singly, and each surrounded by a small amount of stroma. Thin sections of the tumor teased and penciled while fresh, showed that by far the larger number of the cells were spindle-shaped, though many were round, and some were star-shaped, the nuclei being very large, and the nucleoli distinct. The stroma generally was fibrillated, and but slight in amount. The blood vessels were numerous. Sections of the tumor, after hardening, showed the cells were arranged in bundles, which interlaced each other in all directions. The growth was a spindle-celled sarcoma."]

Dr. Beverly Robinson, of New York, had never encountered a case of retro-pharyngeal sarcoma, but he had taken care of a case some time since of sarcoma of the larynx, and from this, by analogy, he thought one or two inferences might fairly be drawn. In that instance there was no engorgement of the ganglia of the neck, and no microscopical examination. There was no "embryonic" condition of the blood vessels, upon the presence of which Dr. Carl Seiler laid great stress. Further, he could state, after the close and long continued observation of a case of epithelioma of the larynx, which had come to him in his hospital practice, that the induration and enlargement of the lymphatic ganglia in the region of the neck, in even more malignant affections, were not essential. He had reached the conclusion, from these and other instances observed, that engorgement of the chain of glands referred to, in examples where intra-laryngeal tumors were present, was a sign of differential diagnosis, which could not be relied upon, and indeed it was sometimes absent for a long period in cases of unquestioned malignity. Until now Dr. Rob-

inson had always considered the excessive number of small cells in sarcomatous tumors as being proof, to a certain extent, of their malignity, or at all events of the rapidity with which they would probably recur. In this belief he was upheld by many microscopists, and notably by Virchow, in his work on the pathology of tumors. Dr. Robinson believes that in cases in which a retro-pharyngeal sarcoma is actually present, the necessity of performing pharyngotomy would not often occur, simply because he thought it probable that the patient would succumb to secondary growths in the viscera, and notably in the lungs, before the obstruction to breathing and deglutition was so great as imperatively to demand it.

Dr. Lefferts, of New York, said: The variety of tumors of the lower pharynx and the meagreness of the information that one is able to derive from works on the subject of pharyngeal affections, makes the paper of Dr. Knight one of peculiar value and interest. I must also congratulate him upon the thoroughness with which he has performed his task of collating the literature of the affection, for having recently had occasion to go over the ground myself, in connection with a case of which I shall in a moment speak, I am in a position to know from experience the amount of labor involved in the exhaustive search for recorded instances of pharyngeal tumor which he has made. Many points of interest from a surgical and pathological standpoint force themselves upon the attention after hearing the history of the doctor's case and the number which he has collected. I shall allude to but a few. Are tumors of the pharynx, their rarity being admitted, usually benign or malignant in their nature, is a question which naturally presents itself first; one of much import, and one that must seriously influence prognosis. Again, are they, as a rule, easy or difficult of removal, and what operation or method of operating will best suit the general indications of the ordinary case? All these are practical questions and ones upon the elucidation of which personal experience will necessarily shed much light. I have seen in my own practice and that of others, five instances only of true tumor of the middle or lower pharynx. In three cases they were developed within the tissues of the *velum palati* alone and in the remaining two involved both the tonsil and lateral pharyngeal wall. The anatomical details of exact locality and displacement of parts I spare you.

In three cases the tumors, varying in size from that of a walnut to more than the bulk of the first (Peter's case), were readily *enucleated*, with some care after an incision, crucial or linear, had been made over them. In one case the tumor was encircled with the galvano-cautery loop and cleanly removed, and in the last, partially removed by this means, the operation being completed with the knife. Microscopical examination in three instances certainly, and perhaps in the fourth, showed the neoplasm to belong to the class *adenoma*. In the fifth case as far as I know, no examination was made. My individual experience then has been, that pharyngeal tumors are certainly often benign in their nature, and easily removable by enucleation, but perhaps my experience has been exceptionally fortunate and unusual.

Dr. Knight has raised the question as to the propriety of removing the tumor in his case, through an incision in the thyro-hyoid space, and as to the danger of the operation. "Sub-hyoidean laryngotomy," or perhaps more correctly, "pharyngotomy," has been performed but once in this country, and then by myself, for the removal of a foreign body impacted for years in the upper parts of the larynx. No accident happened during it, no difficulty was met with, and I should, from my experience of operations in general, regard this as a very easy and safe one, as far as the operation itself is concerned. The results, as recorded when it has been performed for the removal of pharyngeal growths, have not been favorable; results attributable, I believe, to the nature and location of the neoplasm, and not to the operation *per se*. Whether or not it be indicated in Dr. Knight's case, which the nature and location of the tumor make a serious one, that is to say, whether he will be able to best reach the growth by this means, he must judge, his repeated examinations fitting him for the task. He has other operations at his disposal, such as dividing the lower jaw in the median line and separating its halves, a procedure which increases most markedly our opportunity of reaching and working in the lower pharynx. Finally the question presents itself whether we shall, in such a case as that of Dr. Knight's (the growth being known to be sarcomatous, and therefore, in all probability recurrent in its nature, the symptoms not at this date urgent, certainly not dangerous, and the operation which best perhaps presents a feasable hope of reaching the mass so thoroughly as to remove it entire, being one where results, when undertaken for this particular

purpose, are not good) operate at once or wait for more urgent surgical indications. Here, again, individual experience and peculiar views must decide. I should be in favor, in the *present instance*, of waiting at least for a time if my interpretations of the signs as I have heard them read be correct; but there is likewise much to be said, probably, by the advocates of early extirpation. I simply record my own views.

Dr. Roe, of Rochester, N. Y., said: A case of pharyngeal tumor came under my observation last February. It was in a little girl seven years old.

About two months previous the child began to have an impediment in speaking, and a small tumor was noticed in the throat, supposed to be an enlarged tonsil. Shortly after deglutition began to be interfered with, when she was taken to the family physician, who referred the case to me.

On examination I found a hard nodule, about the size of a hickory nut, located to the right of the median line of the pharynx, about opposite the upper border of the epiglottis. I was unable to determine the exact nature of the tumor, but decided that it must be removed without delay, as it was growing quite rapidly, and respiration was interfered with during sleep, causing a snoring, and sometimes starting up suddenly for breath. Its general appearance and feeling were more like a fibroid, and supposing it might be difficult of removal, I had the galvano-cautery at hand to destroy what I might not be able to remove with the knife, or to remove it with the cautery knife in case of much hemorrhage. I first made an incision over the tumor, and found that I could without difficulty enucleate the growth, which I did with but slight hemorrhage. The tumor, on examination, was found to be a lipoma.

The easy removal of this growth by enucleation accords with the statement just made by Dr. Lefferts, that in his experience pharyngeal tumors are usually readily removed, and often easily enucleated as illustrated by the cases which he has just cited.

I have been much interested in Dr. Knight's very unique case, as it is one much more difficult of management than are usually found in the pharynx, and shall be glad to learn the result of his future treatment of it.